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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,286	01/16/2002	Mitsuo Horikawa	05711.0137	2337

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Finnegan, Henderson, Farabow,
Garrett & Dunner, L.L.P.
1300 I Street, N.W.
Washington, DC 20005-3315

EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/046,286	Applicant(s) HORIKAWA, MITSUO	
	Examiner Jennifer A Boyd	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2 and 5 are rejected as being dependent on independent claim 1.

3. The limitation "core string" in claim 1 is unclear. Is the core string a monofilament, multi-filament or spun yarn? For the purpose of examination at this time, the Examiner will assume that the core string is any sort of yarn structure.

4. Claim 1 recites the limitation "the other warps" in lines 5 and 6. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 1 is unclear because the Examiner does not know which side is the "inner side". For the purpose of examination at this time, the Examiner will assume that the "inner side" can be any side adjacent, to the left or to the right, to the "core string".

6. Claim 1 is unclear because the Examiner does not know what is implied by "main" in "a tape main portion". Does the "main tape portion" constitute the majority of the slide fastener tape?

7. In claims 3 and 4, it is preferred by the Examiner to use common textile terms such as "diameter", "denier" or "tex" to define the size of the yarn.

8. Claim 1 recites physical properties of the woven slide fastener tape comprising a "core string", "foundation warp" and "warp adjacent to core string" (i.e. thermal contraction

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coefficients). *Ex parte Slob*, 157 USPQ 172, states the following with regard to an article claimed by defining property values:

Claims merely setting forth physical characteristics desired in article, and not setting forth specific compositions which would meet such characteristics, are invalid as vague, indefinite and functional since they cover any conceivable combination of ingredients, either presently existing or which might be discovered in future and which would impart desired characteristics; thus expression "a liquefiable substance having a liquefaction temperature from about 40°C to about 300°C and being compatible with the ingredients in the powdered detergent composition" is too broad and indefinite since it purports to cover everything which will perform the desired functions regardless of its composition, and in effect, recites compounds by what it is desired that they do rather than what they are; expression also is too broad since it appears to read upon the materials that could not possibly be used to accomplish purposes intended.

Furthermore, it is necessary that the product be described with sufficient particularity that it can be identified so that one can determine what will and will not infringe. Thus, claim 1 is indefinite for reciting only the desired physical properties woven slide fastener tape comprising a "core string", "foundation warp" and "warp adjacent to core string", rather than setting forth structural and/or chemical limitations of said fabrics.

Claim Rejections - 35 USC § 102/103

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1- 3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ofusa (US 4,215,729).

As to claim 1, Ofusa teaches a fastener stringer. See Figure 1. The fastener stringer comprises *foundation warp threads 17* in *section W*, equated to Applicant's "foundation warp", and a *woven filament section W_f*. The *section W* is a woven portion comprising warp and weft yarns. The *woven filament section W_f* comprises a *first binding warp system 19* and a *second binding warp system 23*, which are together equated to Applicant's "warp adjacent to core string at an inner side". Additionally, the *woven filament section W_f* comprises a *reinforcing stringer, cord or core 16* equated to Applicant's "core string" (see column 2, lines 44 - 65 and column 3, lines 1 - 15).

As to claim 1, although Ofusa does not explicitly teach the claimed foundation warp has a lower thermal contraction coefficient than the other warps, the core string has a high thermal coefficient, and the warp adjacent to the core string has a thermal coefficient higher than the foundation warp and lower than the core string, it is reasonable to presume that foundation warp has a lower thermal contraction coefficient than the other warps, the core string has a high thermal coefficient, and the warp adjacent to the core string has a thermal coefficient higher than the foundation warp and lower than the core string is inherent to Ofusa. Support for said presumption is found in the use of like materials (i.e. a woven slide fastener tape with three distinguishable sections which can be equated to the "foundation warp", "warp adjacent to core string at inner side" and "core string") which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently

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claimed property of foundation warp has a lower thermal contraction coefficient than the other warps, the core string has a high thermal coefficient, and the warp adjacent to the core string has a thermal coefficient higher than the foundation warp and lower than the core string would obviously have been present once the Ofusa product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

As to claim 2, Ofusa teaches that the *first binding warp system 19* and *second binding warp system 23*, which are together equated to Applicant's "warp adjacent to core string at an inner side", comprise parallel warp yarns, such as parallel yarns numbered 20 and 24 (Figure 1 and column 3, lines 1 - 15).

As to claim 3, Ofusa teaches that the *foundation warp threads 17* in *section W*, equated to Applicant's "foundation warp", are thicker than the yarn composing the *first binding warp system 19* and *second binding warp system 23*, which are together equated to Applicant's "warp adjacent to core string at an inner side" (See Figure 1).

Claim Rejections - 35 USC § 103

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ofusa (US 4,215,729).

Ofusa teaches that the *section W* comprises *foundation weft thread 17*, equated to Applicant's "weft", which is composed of two paralleled yarns (See Figure 1 and column 2, lines 67 - 69).

Ofusa discloses the claimed invention except for that the total thickness of the two paralleled yarns of the weft is set to be smaller than the total thickness of the two paralleled warp

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adjacent to the core string. It should be noted that the thickness of yarns is a result effective variable. For example, as the thickness increases, the yarn and material become stronger and more dimensionally stable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a fastener stringer with the total thickness of the two paralleled yarns of the weft to be set smaller than the total thickness of the two paralleled warp adjacent to the core string since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the thickness of the paralleled weft yarns to allow maximum flexibility to allow easy connection to a garment, for instance, and sturdiness on the edge portion next to the core string to ensure proper strength when zipping.

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ofusa (US 4,215,729) in view of Matsushima (US 6,505,652).

Ofusa teaches the claimed invention except it fails to disclose that the foundation warp, the warp adjacent to the core string and weft are composed of a textured yarn.

Matsushima teaches a slide fastener tape (Title). Matsushima teaches that the tape is woven material having a *main portion 4*, *flexible yarns 6* and a *core string 9* (column 3, lines 25 – 65). See Figure 1. Matsushima teaches that the *flexible yarns 6* have a bulked, therefore are textured (column 3, lines 50 – 55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce the slide fastener of Ofusa with bulked yarns for the foundation warp, warp

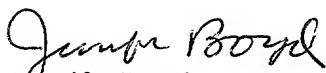
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adjacent to core string and weft as suggested by Matsushima motivated by the desire to maintain the stability of the fastener tape (Matsushima, Abstract and column 4, lines 30 – 34).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 703-305-7082. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Jennifer Boyd
August 14, 2003

